AMENDMENTS TO THE CLAIMS:

Please cancel without prejudice claims 1-12 and add newly written claims 13-21 as follows.

This listing of claims will replace all prior versions, and listings, of claims in the application:

1-12. *(Cancelled)*

13. *(New)* A data processing apparatus comprising:

a processor;

an n-way set associative cache having a plurality of entries, where n is an integer greater than 1, each entry being arranged to store one or more data values, the processor being operable to select one of the n-ways to operate in a lockdown mode, the lockdown mode being used to lock data values into the selected one of the n ways; and

a plurality of lockdown controllers, each lockdown controller being associated with a corresponding way, each lockdown controller comprising:

a disable unlocked allocation flag, the corresponding way being prevented from storing any unlocked data values when the disable unlocked allocation flag is set;

the processor being operable to set the disable unlocked allocation flag for all of said lockdown controllers other than the lockdown controller associated with said

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selected one of the n-ways in order to subsequently cause a number of data values for storage in the cache to be stored in that selected one of the n-ways, whereafter the processor is operable to set the disable unlocked allocation flag for the lockdown controller associated with said selected one of the n-ways in order to cause the data values stored in that way to become locked.

14. *(New)* The data processing apparatus of claim 13 wherein each lockdown controller further comprises an enable lockdown flag, the corresponding way being able to store locked data values when the enable lockdown flag is set, when said number of data values have been stored in the selected one of the n-ways, the associated lockdown controller being arranged to have its disable unlocked allocation flag set whilst its enable lockdown flag is not set, thereby preventing any further data values being allocated to that selected one of the n-ways.

15. *(New)* The data processing apparatus of Claim 13, wherein when said number of data values have been stored in the selected one of the n-ways, all of said lockdown controllers other than the lockdown controller associated with said selected one of the n-ways are arranged to have their disable unlocked allocation flags reset to allow data values to be allocated to the corresponding ways.

16. *(New)* The data processing apparatus of claim 13 wherein the cache further

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comprises a lockdown field for each entry which is set to indicate that the one or more

data values in that entry are locked.

17. *(New)* The data processing apparatus of claim 16 wherein each entry

comprises a cache line and the lockdown field comprises one bit.

18. *(New)* A lockdown controller for a data processing apparatus as claimed in

Claim 13, comprising:

a disable unlocked allocation flag, the corresponding way being prevented from

storing any unlocked data values when the disable unlocked allocation flag is set;

the processor being operable to set the disable unlocked allocation flag for all of

said lockdown controllers other than the lockdown controller associated with said

selected one of the n-ways in order to subsequently cause a number of data values for

storage in the cache to be stored in that selected one of the n-ways, whereafter the

processor is operable to set the disable unlocked allocation flag for the lockdown

controller associated with said selected one of the n-ways in order to cause the data

values stored in that way to become locked.

19. *(New)* A method of locking data values in a way of an n-way set associative

cache, where n is an integer greater than 1, the cache having a plurality of entries, each

entry being arranged to store one or more data values, the method comprising the steps

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of:

a)   selecting a way from the n ways to operate in a lockdown mode;

b)   setting a disable unlocked allocation flag in each lockdown controller associated with the other ways of said n-way set associative cache so that those ways are prevented from storing any unlocked data values;

c)   storing a number of data values in said way selected at said step (a); and

d)   setting the disable unlocked allocation flag in a lockdown controller associated with the way selected at said step (a) to cause the data values stored in that way to become locked.

20. *(New)* The method of claim 19 further comprising the step of:

at said step (d), ensuring that an enable lockdown flag of said lockdown controller associated with the way selected at said step (a) is not set, thereby preventing any further data values being allocated to that selected one of the n-ways.

21. *(New)* The method of Claim 19, further comprising the step of:

when said number of data values have been stored in the selected one of the n-ways at said step (c), resetting the disable unlocked allocation flags for all of said lockdown controllers other than the lockdown controller associated with said selected one of the n-ways, in order to allow data values to be allocated to the corresponding ways.